

## Epilepsy, the devil and immigration

Epilepsy is a sudden paroxysmal discharge of nerve cells that often results in impairment of consciousness and muscular movement. It is relatively simple to understand in terms of mechanism and clinical manifestations. Despite this, it has been one of the most misunderstood diseases, and people with this disorder have been subjected to many prejudices and cruelties that persist today. It is probable that there are over 100 000 people with epilepsy in Canada and that the prevalence of this disease approaches that of diabetes. Why then have these people been so misunderstood, stigmatized, often rejected from employment and selected for special mention as a prohibited class for immigration into Canada?

In past centuries epilepsy has been associated with possession by the devil and with magic, mystical philosophies and mental illness. Surely in 1977 these beliefs have disappeared? But still we find the belief in India that the saliva of people with epilepsy is contagious, in Africa that epilepsy is due to possession by the devil or to witchcraft, in Uganda that the epileptic child has been born with a lizard in his brain, and in South Africa and Ethiopia that witches and ancestor spirits cause the seizures.<sup>1</sup> In the Western world a substantial percentage of parents will not allow their children to play with epileptic children. Interview of German and American parents disclosed that 37 and 9%, respectively, objected to their children playing with children with epilepsy.<sup>1</sup> Some people still believe that the cause is demonic possession, radioactive fall-out or other ridiculous factors, and some people in our population still think that it is contagious. In Germany 27% of the population believe that epilepsy is a form of insanity,<sup>1</sup> and over 11 million Americans believe that people with epilepsy should

not be permitted to work.<sup>1</sup> In Canada until this year our immigration laws prohibited the person with epilepsy from immigrating to this country.

There are indications that the negative attitudes towards epilepsy are changing, but epileptics are still subjected to many cruelties and prejudices. That there is still a stigma related to epilepsy is important to understand in order to overcome it. Recently this aspect of epilepsy has been studied as a basis for changing our thinking about the condition. In 1969 a seminar on the stigma associated with leprosy, facial disfigurement, cerebral palsy and epilepsy determined that fear is the major cause of the prejudice.<sup>1</sup> This fear can be diminished by dissemination of information and by bringing the disorder into public view, particularly through the mass media. The television series "Ironside" did this for paraplegics. Appropriate policies in schools, public institutions and businesses should reflect intelligent and humane approaches to these disorders.

Goffman<sup>2</sup> noted that the reactions of the nonstigmatized person towards the stigmatized are essentially negative.

By definition, of course, we believe the person with a stigma is not quite human. On this assumption we exercise varieties of discrimination, through which we effectively, if often unthinkingly, reduce his life chances. We construct a stigma-theory, an ideology to explain his inferiority and account for the danger he represents, sometimes rationalizing an animosity based on other differences, such as those of social class . . . Further, we may perceive his response to this situation as a direct expression of his defect, and then see both defect and response as just retribution for something he or his parents or his tribe did, and hence a justification of the way we treat him.

Perhaps the main difficulty in overcoming the stigma of epilepsy is in modifying the psychological effect on

the observer of a grand mal seizure. Unlike most situations in which someone becomes suddenly ill, the seizure tends to evoke fear, revulsion and puzzlement rather than sympathy or empathy. Most observers reject the person with epilepsy, and the anticipation of another seizure makes them feel that the person is unreliable and "different".

One additional factor that has contributed to this feeling has been the suggestion that people with epilepsy have a certain personality type. Many of the early studies that suggested this were based on the behaviour of institutionalized patients with epilepsy, though only a small percentage of people with the disorder require institutionalization; it is usually required because of other forms of brain damage associated with seizures.

Some writings during the early part of this century suggested that crimes, particularly those of violence or passion, were an epileptic phenomenon, and this has persisted into recent court trials in the United States. It is still common for US lawyers to try to explain their client's crime in terms of an epileptic seizure. This misunderstanding of epilepsy has been further perpetuated by Michael Crichton's recent book "The Terminal Man",<sup>3</sup> which suggests that the violence of the principal character was related to psychomotor epilepsy. The tendency to blame crimes on epilepsy ignores the facts that the incidence of crime in people with known epilepsy is no higher than in the general population, and that during a seizure the epileptic is unlikely to be capable of any complex thinking or planning.

Attitudes, however, are becoming more enlightened, and many of the laws and regulations related to epilepsy are changing. Although many teachers and administrators in the school system still believe that epilepsy is a form

of mental retardation, a much more humane attitude is being shown towards epileptic children. Prejudice in the employment field is still common even though epilepsy can be well controlled in 80% of patients. Also, because the patient with a well controlled condition usually does not reveal his disorder, the only experience employers have is with the poorly controlled condition, which is apparent because the employee has seizures at work. It is clear that the unemployment of people with epilepsy is related in large measure to the attitudes of society rather than to epilepsy itself. Even when the seizures are controlled completely these people may have difficulty getting a job if they reveal their condition.

Until 1959 the US government would not hire a person with epilepsy for any civil service position. In an Arizona survey<sup>1</sup> 73% of the 314 employers interviewed stated emphatically that they would not knowingly hire anyone with epilepsy. Although attitudes towards epilepsy are improving, the result is not necessarily more enlightened employment practices. Sands and Zalkind<sup>4</sup> found that,

even though employers view favourably the epileptics who work for them, they do not yet generalize these positive feelings into hiring behaviour and practices.

The Human Life Center of St. John's University, Collegeville, MN 56321, an international educational center involved with marriage enrichment, family planning and population studies, hereby announces its new 100-page quarterly review: **INTERNATIONAL REVIEW OF NATURAL FAMILY PLANNING**. All natural methods and programs of family planning worldwide will be treated without neglecting chemical and mechanical means, including sterilization and abortion. Advantages of the natural, human fertility control will be highlighted, such as: self-knowledge, sexual maturity, husband-wife cooperative responsibility for fertility control, enhanced spousal communication, solution of infertility problems, etc.

Among the authors included in the first issue will be: Maureen Ball (Australia), Hanna Klaus, M.D. (USA), Daniel Ch. Overduin, M.Th., D.D. (Australia), Rudolf Vollman, M.D. (Switzerland), Josef Roetzer, M.D. (Austria), Professor James B. Brown, D.Sc. (Australia), and other authorities. The cost for the **INTERNATIONAL REVIEW** will be \$3.00 per issue, or \$12 per year. For those subscribing before June 1st, the rate will be \$10.00. For ordering the *International Review* or for information concerning the above, write Mr. William D. Molitor, Assoc. Dir., The Human Life Center, St. John's University, Collegeville, MN 56321.



The Human Life Center

Their feelings towards hiring, that is, not to employ more epileptics, remains steadfast. Further, their denial that the unemployment among epileptics is due to employer attitudes makes them almost impervious to conventional educational techniques.

Virtually all countries have restrictions on driving; most indicate that the person with epilepsy can operate a motor vehicle legally if he has been free of seizures for 2 years, whether or not he is receiving therapy. These rules appear appropriate and are generally accepted as reasonable for the patient with epilepsy and for the safety of others.

Laws against the marriage of people with epilepsy have disappeared in most countries, but until 10 years ago there were still such laws in some states of the US. Sterilization laws for people with epilepsy still exist in some US states, but not in Canada. In the US a person with epilepsy can still be committed to a mental institution on the grounds of this diagnosis alone, but not in Canada.

Until this year the most glaring legal prejudice against people with epilepsy in Canada was in our immigration laws. The bill now before the House of Commons will remove the specific mention of people with epilepsy as a prohibited class. For many years the exclusion of these people from immigration continued an attitude towards epilepsy that should have disappeared in the last century. We applaud this change in our laws, late though it may be.

Dr. Wilder Penfield, world-renowned Canadian neurosurgeon and neurologist, died in 1976. His research and writings revealed new and exciting information about the functioning of the human mind and brain. In particular he contributed new understanding of epilepsy and made great contributions in the effective medical and surgical management of these patients. It is a fitting tribute to Dr. Penfield that finally Canadian immigration laws will reflect a more humane and modern understanding of epilepsy.

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## References

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2. GOFFMAN E: *Stigma: Notes on the Management of Spoiled Identity*, Englewood Cliffs, NJ, P-H, 1963
3. CRICHTON M: *The Terminal Man*, New York, Knopf, 1972
4. SANDS H, ZALKIND SS: Effects of an educational campaign to change employer attitudes towards hiring epileptics. *Epilepsia* 13: 87, 1972

# OGEN\*

Piperazine Estrone Sulfate

Estrogen

**Indications:** The treatment of postmenopausal symptoms.

**Contraindications:** Estrogens are contraindicated in persons with known or suspected malignant tumors of the breast or genital tract; with significant liver dysfunction or a history of cholestatic jaundice; during the period when the mother is breastfeeding an infant; if undiagnosed vaginal bleeding is present; if there is a history of thrombophlebitis or thromboembolic disease; with a history of cerebrovascular accident, coronary thrombosis, or the presence of classical migraine; with any ocular lesion such as partial or complete loss of vision, defect in visual fields, or diplopia arising from ophthalmic vascular disease; when pregnancy is suspected.

**Precautions:** It has now been conclusively established that the use of oral estrogens and progestins is associated with an increased risk of thromboembolic disease. It has been estimated that users of estrogen-progestin preparations are 4 to 7 times more likely than non-users to develop thromboembolic disease with no evident cause. Therefore, it would seem prudent and in keeping with basic therapeutic principles to use the smallest effective dose of estrogen in treating patients, whenever feasible.

Before oral estrogens are administered, a thorough physical examination of the patient should be made, paying special attention to the breast and pelvic organs and including a Papanicolaou smear.

When liver or endocrine function tests are indicated in patients on estrogen therapy, they should not be considered accurate unless therapy has been discontinued.

Estrogens increase the binding capacity for thyroxine and this, in turn, may influence to varying degrees such thyroxine function tests as the PBI, thyroxine, and the T-3 uptake. Withdrawal of the oral estrogen medication for 2 to 4 months is necessary before the alteration in thyroxine binding returns to normal.

Diabetic patients or those with a family history of diabetes should be followed closely for any decrease in glucose tolerance.

Latent diabetics may be given oral estrogens but only under close supervision; overt diabetics in the younger age group, whose disease is of recent origin, well controlled, and who do not exhibit hypertension or other signs of vascular disease, may safely use oral estrogens for a limited time.

Patients with persistent, irregular vaginal bleeding require investigation to exclude complications of pregnancy or cervical or endometrial neoplasms.

In metabolic or endocrine disease and when metabolism of calcium or phosphorus is involved, careful clinical evaluation should precede medication.

The possible influence of prolonged estrogen therapy on pituitary, ovarian, adrenal, thyroid, hepatic, or uterine function awaits further study.

In cases where estrogen-induced salt and water retention may occur, such as epilepsy, migraine, asthma, cardiac or renal failure, use estrogens with particular caution.

Patients on oral estrogen therapy, who have a history of emotional disturbance, especially the depressive type, may have a recurrence; if this occurs, discontinue the drug.

Patients who develop visual disturbances, classical migraine, transient aphasia, paralysis, or loss of consciousness, or who show signs of phlebitis or give a history of jaundice, should not continue the medication or should be very closely monitored.

Patients who develop severe generalized pruritus or icterus while on oral estrogen therapy should be examined for hepatic dysfunction, and the medication withdrawn until the problem has been resolved.

**Adverse Effects:** The following adverse effects have been reported with estrogens generally and may be encountered when giving any estrogen:

Gastrointestinal: nausea, anorexia, vomiting, abdominal cramps, bloating, cholestatic jaundice, and increase or decrease in body weight; Genitourinary: sodium and water retention, breakthrough bleeding, spotting and withdrawal bleeding; increased cervical mucus, reactivation of endometriosis, and cystitis-like syndrome;

Endocrine: breast swelling and tenderness, increased blood sugar levels, and decreased glucose tolerance;

Central nervous system: headaches, mental depression, increase or decrease of libido, nervousness, dizziness, fatigue, irritability, and malaise;

Dermatologic — hypersensitivity: loss of scalp hair, allergic reactions and rashes, hemorrhagic eruption, itching, erythema nodosum, and erythema multiforme;

Musculoskeletal: backache;

Cardiovascular: an increase in blood pressure in susceptible individuals and aggravation of migraine headaches;

Hematologic: a statistically significant association between the use of estrogen-progestin preparations and the following serious reactions have been demonstrated: thrombophlebitis, pulmonary embolism, and cerebral thrombosis.

While available evidence suggests an association with the following serious reactions, such a relationship has been neither confirmed nor refuted: coronary thrombosis and neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis. Miscellaneous: premenstrual-like syndrome and precipitation or aggravation of porphyria cutanea tarda in predisposed individuals.


**Overdosage:** Symptoms: Excessive doses may result in nausea, vomiting and abdominal cramps, headache, dizziness, and general malaise.

**Treatment:** Remove all of the ingested drug and give symptomatic treatment. If the transient hyperestrogenic effects include severe temporary sodium and water retention in some susceptible individuals, administer diuretics.

**Dosage:** Administer orally and adjust dosage to the minimum required to control symptoms. Although once-a-day dosage is perhaps the most common, piperazine estrone sulfate may be administered in divided doses.

Estrogen deficiency states: 3 mg per day. If a higher dose is used initially, this amount can be reduced in most cases after the desired effect has been achieved. Maintenance dosage is usually prescribed for periods of 3 to 5 weeks, alternating with rest periods of 5 to 7 days.

Senile vaginitis and kraurosis vulvae with or without pruritus: 0.75 to 3 mg per day, according to clinical response.

**Supplied:** Each bisected, compressed tablet, marked with the Abbott logo , contains: piperazine estrone sulfate 1.5 mg (peach) or 3 mg (blue). Bottles of 100 tablets.

PHARMACEUTICAL PRODUCTS DIVISION  
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